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No. 10.—Vol. 1.

AUGUST, 1905.

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September Number

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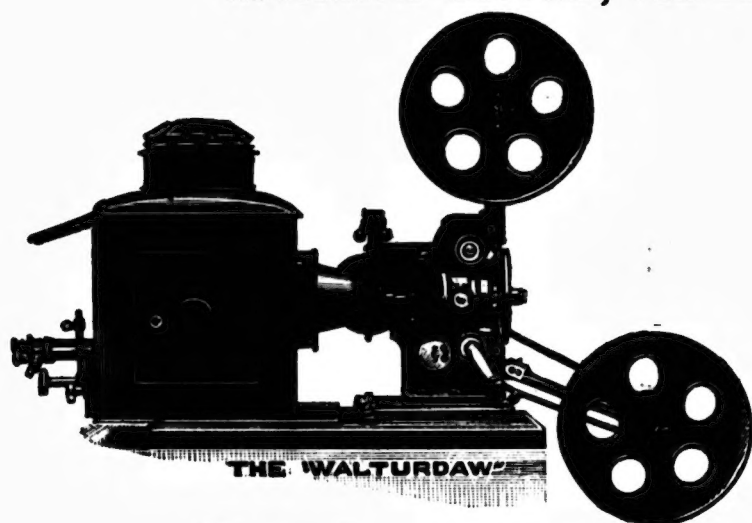
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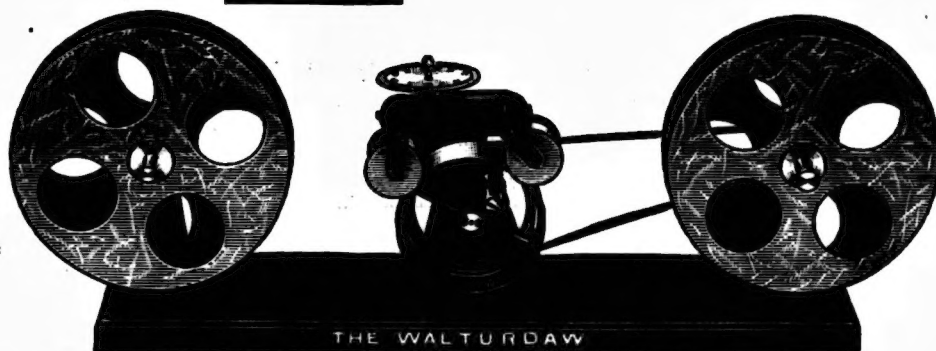
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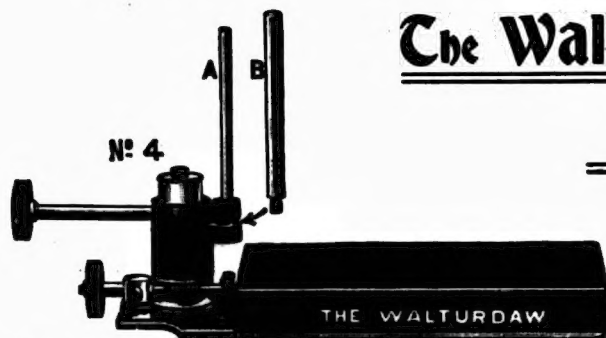
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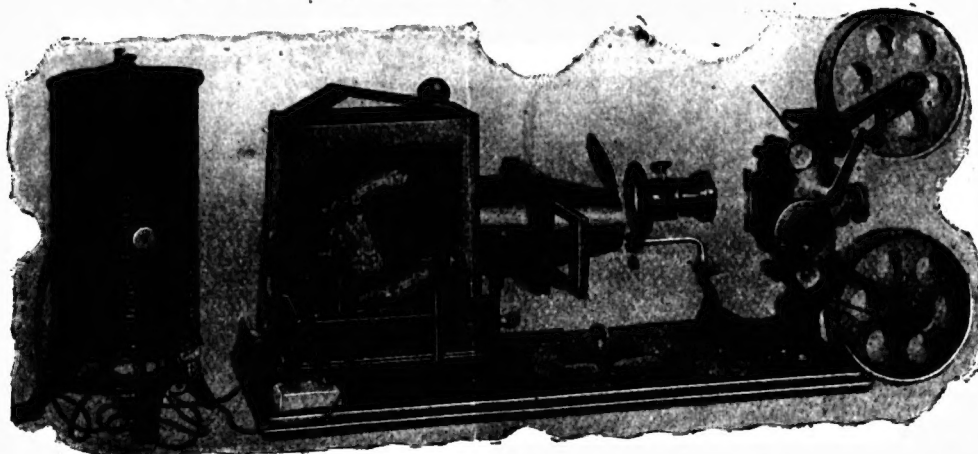
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WE issue our present number with a feeling akin to relief. When we re-issued our magazine last November in its new form, "the trade" were unanimous in their desire to support a magazine devoted to their particular interests, but many only took advertisements for the season, saying it was practically impossible for the OPTICAL LANTERN JOURNAL to run continuously through the summer months. We, however, determined to carry out our promise to publish the magazine for twelve months, success or failure notwithstanding, and are gratified with the result, for although our advertising pages have diminished during the summer, our subscriptions and readers have increased each month.

✿

AN increasing number of subscribers is the chief factor to success, and not only has this been a gratifying feature to us, but the testimony of readers at home and abroad to the help and usefulness of our articles, and the enquiries and correspondence we have received from them, proves our magazine a necessity all the year round. We want more of this interest, and can assure our friends of our wish at all times to open our columns to any matter that may be in any way helpful. With our next number, which practically starts the season, we shall increase the quantity of our pages, and insert several special articles by well-known writers. A new feature will be "Trade Notes," in which up-to-date news concerning firms and their doings will be chronicled. Our interesting pages on new films will be

improved by the addition of blocks giving scenes from each series. Our illustrated interviews will be resumed, and many other additions will be made to the interest of our pages. We ask the support of the trade both in our advertising columns making our Journal more widely known, and by forwarding any items of news which they consider of general interest.

✿

WE have previously complained of the indifference of local newsagents to the requirements of their customers. Three letters reached us last month in the same strain as the following, which comes from Twickenham:—"I cannot understand the reason I am not able to get my OPTICAL LANTERN AND CINEMATOGRAPH JOURNAL for this month yet. It is now July 25th. Is it the fault of my newsagent? He tells me they are not out yet. Is that so? Please reply."

✿

WE have replied that the local newsagent is undoubtedly to blame. Our Journal was out on the fifth of the month, and they should obtain copies from their wholesale dealers at the latest two days after. The fact is they think it is not worth the trouble to obtain special publications, and their customer is put off by the statement that the magazine is not out. Our advice to any reader experiencing similar difficulty is to send a year's subscription direct to the office, when the Journal will be posted for twelve months directly it is published.

THE Cinematograph on the Stage is quite a novel situation for the optical lantern, and the novelty of the idea has considerably helped to make a huge success of a play that has just been produced at the Crown, Peckham. Mr. Bernard Espeirasse and Mr. James Brown are the collaborators in the sensational dramatic play called "A Silent Accuser." A murder has been committed in a quiet rural district, but, fortunately, a film photographer happened at the time to be taking living pictures of the delightful surroundings. The suspected murderer bases his defence on an alibi; but in the court scene the silent accuser, in the form of a cinematograph projector, recapitulates the scene, and no witness could give more truthful evidence to prove conviction. We believe the Liverpool Cinematograph Syndicate are working the living picture part of the play.

THE use of the biograph or cinematograph in connection with the drama is older than many people suppose. Its most recent development, of course, is in "The Diamond Express," at the Coliseum, but a biograph was first actually used upon the stage in connection with a drama, I believe, at the Elephant and Castle Theatre, in 1898-99. It was next seen at Drury Lane Theatre in the autumn of 1899; but though the celebrated biograph picture in "Hearts are Trumps" was a legitimate part of the scene, it did not go to represent scenery. A much more ambitious attempt to use the biograph was made in 1901, at Drury Lane Theatre, in "The Great Millionaire," but it did not work quite satisfactorily. After a few performances it was cut out, and the sensation was mechanically produced.

THE chief difficulty in connection with biographs on the stage is that of colour, and this difficulty nobody attempted to overcome until Mr. Raleigh gave us some really very effective colour changes in his sketch at the Coliseum. These changes, however, are only elementary. No biograph has yet given details of colour, such as the reflection of a red lamp in

water, or of the head-lights of a steamship on the sea. Even the contrast between green trees and blue sky presents difficulties. When science has removed these, the development of the biograph for theatrical purposes will be limitless.

THE popularity of living pictures is not now confined to four walls. The *al fresco* concert parties at our seaside resorts have added them, with more or less success, to their programmes, and some we have seen in a town on the East Coast were the star items looked for, especially by the crowds. The projectors were of good make, the films up-to-date, and the accompanying music appropriate.

ANOTHER reason that our friends, the concert parties, find living pictures a paying game is that they are a valuable attraction and addition to the Sunday evening performances, and withal an inexpensive adjunct. I am afraid some of the films I saw on a recent Sunday could not be called strictly Sabbathical, but the process of secularising has been gradual, and consequently hardly commented upon by the authorities. Those in charge should remember to keep their shows within due bounds, or should their shows become too pronounced there may be an outcry, and a stop put to what at present is a very paying attraction.

LONDON during the past month has been literally besieged with foreigners and Americans, and I have been very amused at their anxiety to take back to their own countries photos showing London life under curious conditions. Noticing an American, with a curious camera, on the front seat of a bus, a day or so ago, I boarded the same vehicle. He had a stereoscopic camera of the most intricate type I have yet seen, in fact, it looked a mass of mechanical complications. This fact, combined with the swerving and jolting of the bus, made me wonder what the results would be. He, however, was not in the least put out, but coolly went to work and took many views during the short period I journeyed with him.

THE number of hand-cameras to be seen in a stroll through the City shows that our friends are strong believers in taking back permanent mementoes of their visits. They certainly vie with each other in obtaining curious effects instead of the picturesque. These are a few subjects which have been popular with them, but can hardly be called beautiful—I obtained the list from a professional developer—Billingsgate or Covent Garden Markets in the early morn, the making of new tube stations, crowds boarding the L.C.C. steamers, Petticoat Lane and Seven Dials, a street organ with dancing children, and a street of costers' barrows. Certainly they may convey an idea of London life; but I doubt if friends at home will be impressed with London's beauty when they examine such a series. That they are not all confined to such subjects is proved by the people one meets with cameras in our Parks, Kew Gardens, the Zoo, and other places of interest; but if a sensational subject or outrageous scene can be found they are highly delighted.

LANTERN SLIDES AT THE NORTHERN PHOTO EXHIBITION, 1905, LEEDS.

THERE was a keen competition in the Lantern Slide Section of the Exhibition for the bronze plaques offered for the two best sets of four pictorial lantern slides; forty-two sets being entered.

W. H. Goy was successful in gaining one, with four exquisite woodland scenes. The other plaque was carried off by Mr. H. Wormleighton for four very fine architectural slides, the definition and lighting of these being very fine. The same exhibitor also has some good frost and mist subjects in another set. "A Sunny Corner," by James Shaw, depicts a youth reading a heavy tome in an old-time apartment, with the sun's rays falling upon the table and floor through a lattice window. Mr. Graystan Bird exhibits three beautiful pieces of work; "Where a Lock Had Been" being, perhaps, the best of the three. The Rev. H. W. Dick shows some *genre* and figure studies of a pleasing character. R. A. R. Bennett has two excellent landscapes and a group of fisher girls, and H. P. C. Harpur shows a nice composition, entitled "Peaceful Hours." Swiss landscapes are shown by W. W. Palmer, and E. R. Bull has four good interiors at Haddon Hall. Ellis Kelsey exhibits a striking piece of work entitled "Night," the subject being a beautiful woman seated by the fireside, the glow of the burning embers bathing her profile in a glory of light. The light has been exceedingly well managed, detail being

present in the highest lights as well as those in the more obscure corners. There are several other exhibits of high technical value and artistic display.

In the Scientific and Technical Class P. P. Wilding secures a plaque for some very good photo-micrographs, whilst Godfrey Baigley takes the other plaque, for his excellence in geological work.

G. A. Booth has some clever bird studies, R. A. R. Bennett some instructive slides of water life, and E. R. Bull quaint misereres, gargoyles, etc. Amongst those of an educational character may be mentioned Wm. Farren's slides, showing the cask skin moult of a caterpillar, interesting, no doubt, to entomologists. Dr. G. H. Rodman has some exhibits not for competition, including radiographic slides of molluscal shells; and O. G. Pike the only set of tri-colour slides (in which it is considered that the red appears too pronounced), and the award in this section was consequently withheld. These, together with a very good tri-chromatic print, by Fred Judge, in Section B, constitute all the examples of colour work exhibited.

NOTICES.

Editor—Theodore Brown. Readers are requested to note that on and after May 15th, the Editorial Office will be at Westcot, Drummond Rd., Boscombe, Bournemouth.

Publishers—Heron & Co., 9 & 11, Tottenham Street, W. Telegrams, "Heronicus London." Telephone, 4777 Gerrard.

Wholesale Agents—F. Brett, 5, Pilgrim Street, E.C. John Heywood, Deansgate, Manchester. W. Lawrence, 5, 6 & 7, Sackville Street, Dublin.

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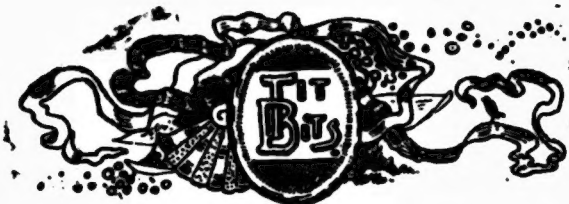
Situations Wanted—Nominal fee of 6d., for not more than 24 words.

M.S.S.—M.S. must be written or typed on one side only, with a margin. Typewriting is preferable to hand-written matter, but the latter will do, providing the handwriting is distinct.

Correspondence Column—Letters of General Interest to our readers are invited, and will be inserted under this head.

Payment for Literary Work—We do not pay for copy used according to space occupied, but according to value. Payments are made by cheque on the 15th of the month in which the matter appears.

Illustrations—We cannot undertake to re-draw or work up rough sketches for publication. When it is possible and desirable to use illustrations, use good photographs (original, of course) or pen drawings in good ink. The size of drawings should be two-thirds larger than size published. Bold lines reproduce better than fine. When illustrating an article with a number of diagrams, mark in order Fig. 1., Fig. 2. and so on, not close to the drawings and in black, but in light blue pencil on the margin and face side. Indicate on M.S. where these figures are to be inserted. Send all drawings or photographs flat and unfolded. We do not guarantee to return M.S. or Illustrations, unless postage is prepaid; and we do not hold ourselves responsible for their safe return.



More Entertainment Accommodation.—Mr. Jasper Redfern has just opened the New Central Hall, Norfolk Street, Fargate, Sheffield, with an attractive programme. We understand that extensive decorations to the hall have been done, and special facilities for cinematograph exhibitions provided for.

Pictures of the Fleets at Brest.—Mr. Chas. Urban was fortunate enough to obtain excellent pictures of this event, through the courtesy of the French and British naval authorities, who gave every possible aid in facilitating the work with the bioscope camera. The pictures are to be exhibited at the Alhambra, and should prove of special interest.

Botanical Slides.—Many of the beautiful photographs taken by the late Mr. F. G. Lloyd, formerly a member of the Council of the Royal Horticultural Society, were used by Mr. S. T. Wright, who delivered a lecture on the 18th July before the above Society in the new garden at Wisley.

The Council of the Royal Meteorological Society, desirous of advancing the general knowledge of meteorology, and of promoting an intelligent public interest in the science, have appointed a lecturer, who is prepared to deliver lectures on meteorological subjects. These will be illustrated by lantern slides from the large collection in the possession of the Society.

Cricket Terms.—The latest new film subject by Messrs. Cricks & Sharp, of 7, Great Queen Street, Kingsway, London, is "Cricket Terms," in ten scenes, thus:—1, Pitching the Wickets; 2, First Man in; 3, A Good Leg Drive; 4, Well Caught; 5, A Maiden Over; 6, The Hat Trick; 7, How's that, Umpire? 8, Well Hit; 9, Out for a Duck; 10, Drawing the Stumps.

Mr. Frederic Villiers, the famous war correspondent artist, is very successful with his lecture descriptive of his experiences with the Japanese Army in front of Port Arthur. It is illustrated by a magnificent collection of lantern slides prepared from Mr. Villiers' own sketches and photographs. Mr. Villiers' slides, which are, perhaps, the most wonderful war pictures in existence, and which depict shells in actual flight and at the moment of explosion, are greatly appreciated.

Popular Lectures for the Coming Season—Our contributor, Professor Golding, has been devoting considerable time and expense in the preparation of three special lectures for the coming season, namely, "Invisible Waves and how to Intercept Them," "Subterranean Shakings and Volcanic Vents," and "Engineering Triumphs of our Age." We believe the first named subject was taken by Mr.

Golding last season, but we understand that some entirely new illustrations and subject matter has recently been added.

Cinematographist in Trouble.—George Mayes (21), alias J. Gorton Mansfield, alias Dan Dawlish, of Walthamstow, and Loughton, Essex, and recently performing on the sands at Weston-super-Mare with concert parties, was at Tiverton charged with converting to his own use nine cinematograph films, the goods of John Sheridan Gordon, professional musician, of London, and for whom prisoner was baillee. The case is one in which a cinematograph tour was undertaken without due considerations of all that is involved in the enterprise, resulting, as it has so often done with others, in a miserable failure. In the present instance the tour had cost the prisoner over £14, and his receipts had been very much below that amount. The case was dealt with under the First Offenders' Act, and the prisoner bound over to come up for judgment if called upon within six months.

Photography as an Art.—Photography, by a recent judicial pronouncement, is now officially recognised in France as an art. The decision arose through an action of a kind not uncommon in England, in which a newspaper had reproduced a photograph taken by a well-known operator without payment, and was sued accordingly. For the defence it was pleaded that under the French copyright law of 1793, and its subsequent extension in 1902, photography was not mentioned, and so there could not exist any basis for such a claim as that made by the plaintiff. The Court, however, decided that in the case of a photographer whose name was well known to the public, his celebrity was due to the fact that his work had the mark of artistic talent, and were, therefore, works of an artistic character. The increasing and multiplying legion of users of the camera can now take heart of grace and ruffle it with the best of them in art circles, though it is hardly likely that the brothers of the brush will concur in the decision of the Court.

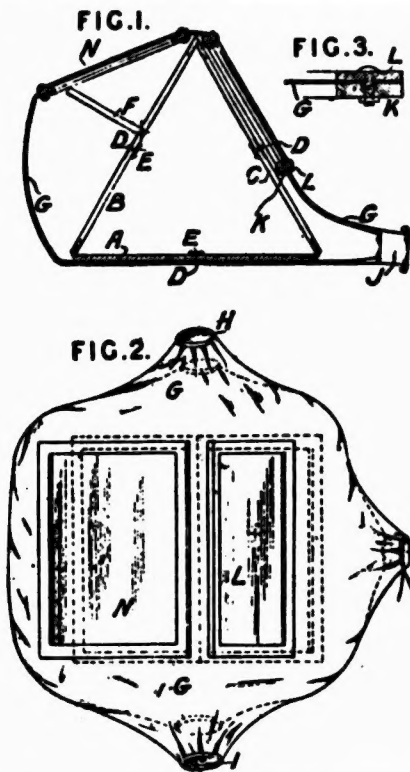
It is a commonplace now that it is the new idea that pays. How much money has been made by the application of new ideas to cinematography is, perhaps, scarcely realised. We have been wondering why the cinematograph is not applied to many of the changes which are constantly occurring in the metropolis, serving two purposes—an interesting film for exhibition and a permanent record of an historic change. To take as an example, the pulling down of St. James's Hall and the contiguous buildings in Regent Street and Piccadilly, and the erection of the new Piccadilly Hotel which is to be put up on the site. Why should not a series of photographs be taken at suitable intervals showing the periodical demolition of the old and the growth of the new? Certain difficulties would occur, and the exposures would need to be made with care and from a fixed standpoint, and, of course, the apparatus would be kept on the one piece of work for a long time. It may be that such a film would not be sensational enough or humorous enough for the British public, and that is a matter on which the large film-producing firms are the best judges, but, as a record of modern building methods, this extended series of "progress photographs" would be distinctly interesting.—*British Journal of Photography.*



PATENTS.

No. 5,586. Photography. MEUNIER, A., 10, Rue Victor Hugo, Lyons, France. March 7.

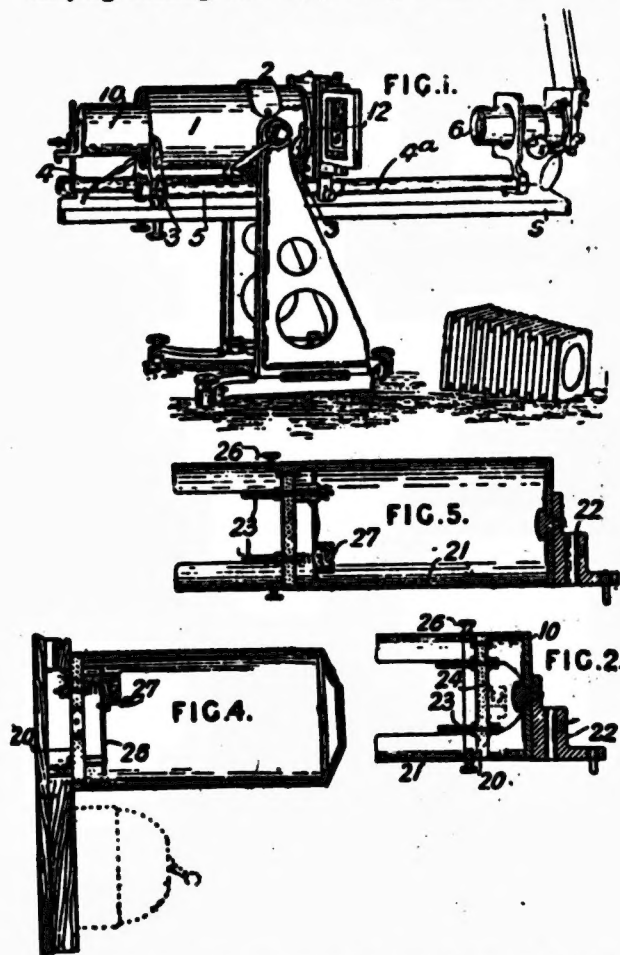
Dark Rooms, portable.—The dark room consists of a triangular framework A, B, C, and a double covering G. The base A alone is solid, hinges D and hooks E, for stiffening the frame, when open, are provided. The double covering G has three apertures, one for each hand, H and I, and one, J, for passing in the various objects required. India-rubber edging to the openings prevents the access of light, which is excluded even when introducing the hands, etc., by means of the double covering. Two rectangular windows N, L, are let in to the covering,



the method of making a light-tight joining being shown in Fig. 3. By means of a hinged arm F, the window N may be arranged at the most convenient angle for receiving the incident light. In another modification, the windows N, L, form part of the framework itself, and the base A is replaced by a cord, folding blade, or similar arrangement. In both cases, the whole is easily folded up into a portable shape.

No. 5838. Optical Lanterns. PAUL, R. W., 68, High Holborn, London, W.C. March 10.

Relates to the construction of optical lanterns or projectors, especially to those in which a Nernst or like electric lamp is used for illuminating, and to the lamp for use therewith. In the lantern shown in Fig. 1, the body 1 is provided with ventilating holes covered by a light-shield 2, which may be replaced by a larger air jacket covering the body completely. Castings 3 attached to the body are bored with holes carrying bracing and supporting tubes 5, in which



also slide tubes 4, 4a carrying the lamp 10 and the objective 6. Troughs, slide-holders, or other apparatus may be mounted on the sliding tubes, or attached to lugs 12 on the front casting 3. A bellows is arranged to be placed between the slide-

holder and the objective. The casting 3 has also bosses to which a removable board 9 may be screwed. The lamp 10 is shown also in Fig. 2, in which the filament-holders 23 are attached to an insulating-plate 20 within a protective chamber 21. A bracket 22 is screwed to the back. The resistances for use with the lamp are either mounted separately in a wall casing, Fig. 4, or combined with the lamp in an elongated form of chamber shown in Fig. 5. The back part of this affords space for the resistance bulbs.



No. 5,948. Photography. FINDLAY, J., I., Kensington Gardens, Ilford, Essex, March 11.

Sensitized Plates and Films.—A base or support for photographic films contains chloral hydrate as an essential ingredient, and is rendered non-inflammable by treatment with an alkaline shellac solution. Di-nitrocellulose, preferably made from linen rags or the like, or mono-nitrocellulose from paper, fibre, or the like, together with a quantity of hard gelatine or glue, is dissolved in a solution of chloral hydrate in glacial acetic acid. To this is added a solution of gum Damar and gum storax in alcohol. Sheets formed from this mass are treated with a solution of one part gum shellac, in one part borax, or other equivalent alkaline solution. The proportions of the several ingredients may be varied according to the nature of the film required.

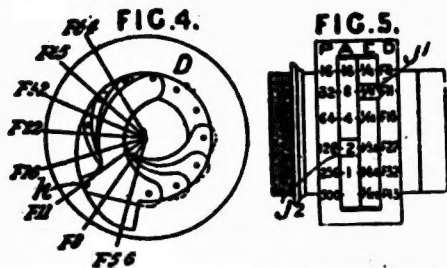


No. 5,949. Stereoscopic Postcards, Etc. BROWN, T., 34a, Castle Street, Salisbury, and BROWN, E. O., 9, Queen's Road, Bournemouth. March 11.

Superimposed stereoscopic pictures are printed in complementary colours on postcards, birthday, Christmas, and Easter cards. In the same card are two perforations, covered with media of the same complementary colours to serve as a stereoscope. In postcards, this part of the card is detachable, but in other cards these apertures are formed in a folding part, or flap, of the card.



No. 6,974. Photography. WATKINS, A., and WOODHEAD, C. G., both of Imperial Mills, Hereford. March 22.



A lens mount is combined with an actinometer scale slide in which one slide E, Fig. 5, operates the iris diaphragm to vary the aperture in a constant geometric ratio for equal rotations of the slide. The

latter may be accomplished by shaping the effective edges of the diaphragm leaves, a geometrical construction for which is fully described; or by combining an ordinary iris diaphragm with a cam-shaped disc D, Fig. 4, which actuates a pin *k* fixed to one of the diaphragm leaves. As a further alternative, curved guide-slots, shaped in a similar manner as the above cam, or leaves, may be used to guide the leaves. The two pointers, *J*¹, *J*², fixed to the slides showing actinic values and exposures respectively, point to the plate speed P and the diaphragm aperture D to be used. The same scales may be used for lenses of different focal lengths by providing a separate index or pointer for each set. The order of the scales may be relatively altered, and a single scale may be substituted to serve at once for the actinic values and the plate speeds.



Correspondence.

MARVELS OF SCIENCE.

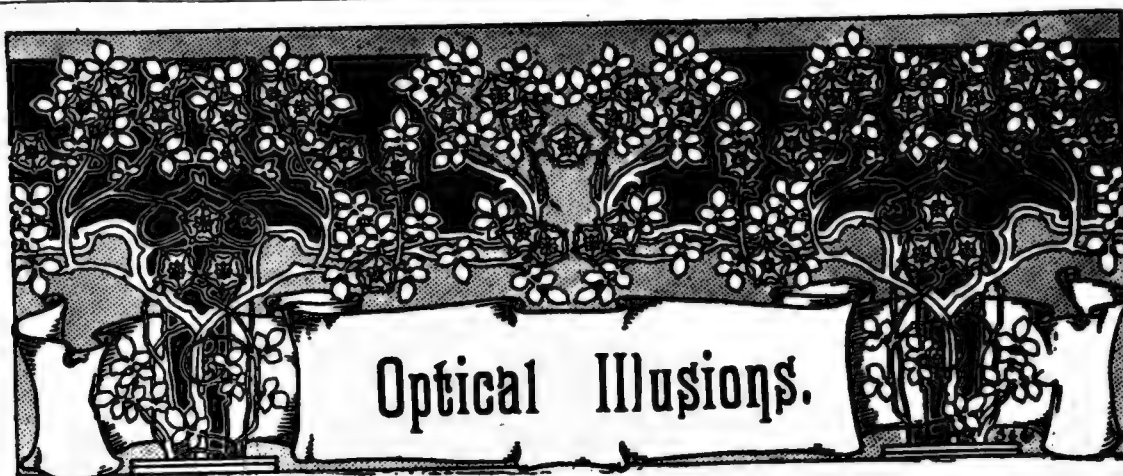
We have received the following interesting letter in reference to our publication of *Marvels of Science* in last month's issue:—

Sir,—Phonograph mentioned first; it does not take the premier place of the few wonderful inventions in the last few years, still it is the most wonderful invention in the whole world, as I shall presently show, and how this has not been published (as far as I know) is most remarkable. No doubt you are familiar with the instrument, but may not have gone into the particulars. When running at the normal speed of 160 revolutions per minute, and I say a word of one syllable, in the space of 3½ inches on the record numerous indentations have been made. If I say Bob, or Sam, or Dick, various indentations have been made, and so on of the many thousands of words. Notes or inorganic sounds may be recorded on the wax, and as there are about 1,400 millions of us, all saying words with different accent, it is then a question of multiples, which shows many millions of different sets of vibration in 3½ inches. Very near infinity!—Yours, etc., WM. RAE, Haddington.



Sir,—Herewith I have the honour to send you the following notice for insertion in your esteemed Journal:—Yours, etc., EDITOR OF "FOTOGRAFISK TIDSKRIFT."

"Johannes Jaeger, Limited," of Stockholm, have from the 1st July taken over the photographic studio and art publishing business, which was founded in 1860 by the Court photographer, Jaeger, and which has been under the management of Mr. Wolfenstein from 1890 to 1905. The managing director for the new Company is Mr. Albin Roosval, Editor of *Fotografisk Tidskrift* (the *Photographic Journal*).



No. VII.

By EDMUND H. WILKIE, *Of the late Royal Polytechnic Institution.*

MR. T. TOBIN, one of the inventors of the "Decapitated Head" illusion, was, I believe, the inventor of "The Sphinx" exhibited by Colonel Stodare with so much success. It represented a living head supported on a small three-legged table, and was identical with the Decapitated Head.

Another method of using this illusion was exhibited at the old Polytechnic in an improved form. In this case the head was simply supported upon a short and slender pillar, the mirrors being without frames, and placed as in Fig. XIX. These edges, as I have before explained, were bevelled; but Mr. Walker, the inventor of Metempsychosis, has devised a much better plan than this for rendering the edges invisible. The small illustration, Fig. XXI., will almost explain itself, (A) is the plate of silvered glass, the extreme end of which (B) it is desirable to render invisible. Mr. Walker fastens a narrow strip of glass, half of which overlaps the end of the main plate, right down its edge. This narrow strip is not all transparent, the shaded portion at (E) being silvered at the back, and as it reflects the side of the apartment in the same manner as the mirror (A), the edge is practically annihilated, and is quite invisible to the spectator at (F).

So important and striking are the results which can be obtained by the use of this invention that the inventor has protected it by law; I should mention in this connection that, although the name of Professor Pepper was coupled with that of Mr. Walker when Metempsychosis was first produced, I have since been informed on the best authority that the merit of the invention rests solely with the latter gentleman, he having completed it ten years before it was produced in public.

I purpose now dealing with a class of optical illusions known as spirit manifestations, but wish it to be clearly understood

that all the effects I shall describe are simply stage tricks, and are not put forward in explanation of the mysteries described by

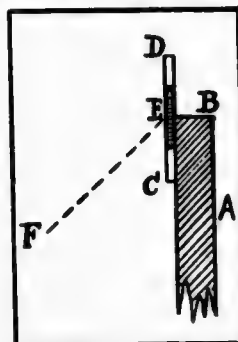


FIG. XXI.

spiritualists, although they were originally no doubt designed to imitate those phenomena. I wish to be perfectly plain and explicit on this point, as my remarks might otherwise cause pain and offend many worthy persons.

One of the commonest manifestations of the presence of a spirit is the appearance of spots of light either singly or in clusters, frequently floating round the room, and as this is the easiest motion to accomplish by mechanical means, it is the most used.

The spirit light, (B) Fig. XXII., may be represented by a small glass bottle filled with oil in which phosphorus has been dissolved, and which is attached to a long stick or fishing rod. This is brought out from behind the proscenium by an assistant after the hall lights have been put out, and is made to float slowly round about and up and down over the heads of the audience.

The best method of working these lights is to bring them forward, not one by one, but in a bunch of ten or twelve, and the light emanating from them is so undefined in shape that they do not appear as a bunch of lights, but as one single nebulous-looking mass.

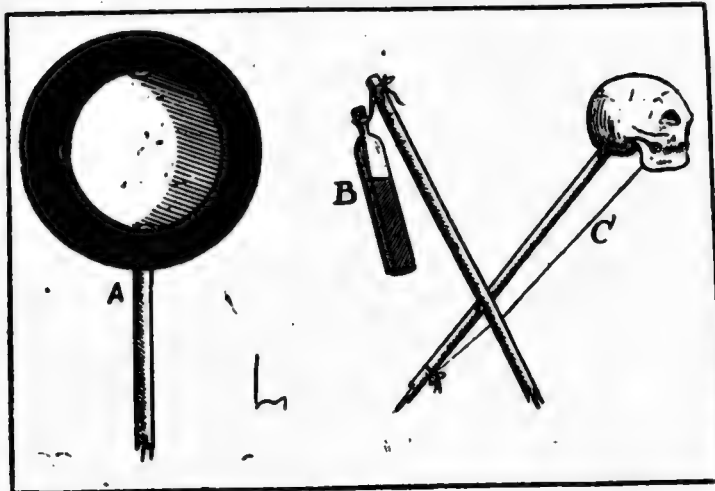


FIG. XXII.

Each single light can then be carefully detached from the main body, and as they float away in all directions the effect is very striking. In these movements much depends upon the care and skill exercised by the assistants, as the luminous objects if moved too quickly would at once, by their line of motion, put the spectators on the track.

Another object which is always effective is the spectre hand, which is usually manufactured from an old glove stuffed with cotton wool and tied to the end of a fishing rod, after being liberally anointed with the luminous oil. During the course of an entertainment at which the writer was present, one of the audience rose from his seat and made a dash in the dark at the spirit hand with one of those walking sticks with a large crook on the end, so much affected by "Mashers" at times, with the result that he hooked the pole, and, his stick sliding down, pulled the glove off the end, exposing the trick.

With regard to the luminous substances with which these objects may be coated, the two mostly in use are, first, oil impregnated with phosphorus; second, Balmain's luminous paint. I have had considerable experience in the use of this paint for entertainment purposes, and have always found it act in a most satisfactory manner. The best method is to prepare the objects we wish to render luminous by painting them with this paint, and when required for use have them arranged along the wall in a room off the platform, and cause an assistant to travel backwards and forwards along the line with a magnesium lamp so that they absorb plenty of light, and are rendered thoroughly luminous. If exhibited shortly after this treatment they are very brilliant, shining with a light resembling the phosphorescence of the sea.

Tambourines, (A) Fig. XXII., can be treated in the same manner as the lights and hands, and form a good accompaniment to them, as

a slight shake produces that jingling sound with which we are all familiar.

It will be noticed that these luminous objects would be apparent to the audience the moment they were brought into the hall or theatre, but in order to avoid this they should be kept closely covered with a cloth until required for exhibition.

It occurred to the writer that the effect upon the minds of the spectators would be much more striking if by any means the luminous appearance could be caused suddenly when the objects were at a distance from the stage. This would be very easy of accomplishment with the modern incandescent electric lamps obscured to the proper pitch, but the travelling lecturer would not always find it convenient to carry batteries of sufficient power, together with the necessary chemicals for working them, so I devised the following arrangement:—Each object we wished to send round over the heads of the audience was fastened to a circular piece of card coated with dead black, and sufficiently large to extend beyond it for several inches all round, as in (A) Fig. XXII. When brought into the hall the black backs were religiously kept towards the spectators, and in that position were projected outwards into the auditorium, when a sudden turn of the rod reversed the whole arrangement, and the luminous objects were visible to those sitting beneath.

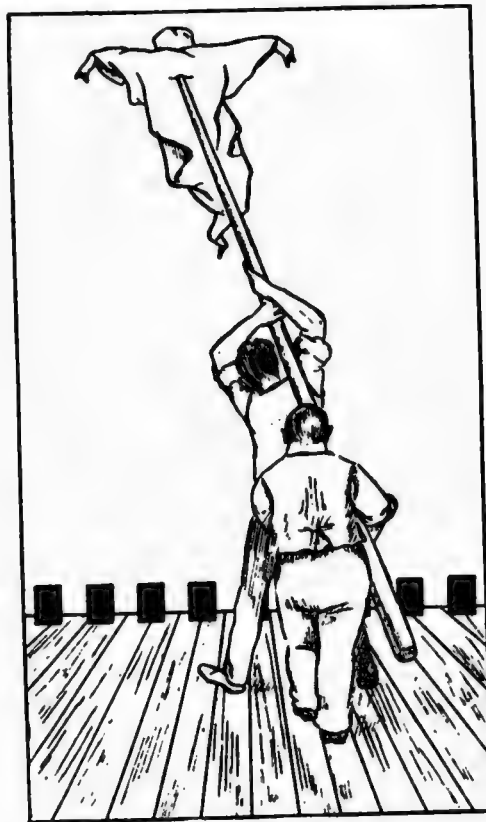


FIG. XXIII.

In a hall where plenty of space is available, floating forms of a nebulous appearance can be caused to appear, and travel outwards over the heads of the audience, and also to take one of the exhibitors by the hand, and, raising him from the floor, to glide through the air across the stage and put him down on the other side. This must necessarily be accomplished in utter darkness, and to avoid detection and to keep secret our means of operating, it is usual to turn the gas quite out. By arranging a small Rhumkoff coil in connection with the sun burner in the ceiling of the hall, the gas may be instantly lighted or put out from the main, a very necessary arrangement in all performances of this character.

Those who are familiar with stage properties will understand that the form of the spirit can be made in light wicker work to cover the front of the body and head of the performer (no back is required), which frame can be draped with material prepared with the luminous paint. When required for exhibition it is first exposed to the rays of the magnesium lamp, and then, being fitted on to the performer, the spirit makes its appearance and glides about the stage where required; but now, how is it to float in the air over the heads of the audience? The means of accomplishing this effect is so simple as to verge on the ridiculous, there are no complicated pieces of apparatus required, nor are the accessories expensive.

The person representing the spectre disengages himself from the basket framework, being assisted by others, who, taking care to keep behind the luminous figure, are, of course, invisible, and proceeds to fit our old friend, the long pole, into a socket provided in the frame, after which, the spirit form is slowly elevated (Fig. XXIII.), at the same time being allowed to move outwards over the heads of the spectators. This needs care, as the pole must be kept quite out of the reach of walking sticks and any structural obstacles which may be present.

Some years ago I read in one of the London daily papers an account of an exhibition in Blackburn, given by a company, the head of which was a lady said to possess considerable power as a medium. It would appear that the previous effects had not given unqualified satisfaction, and when the materialised spirit form, which should have floated from the stage over the heads of the audience to the end of the hall and back again showed signs of getting tired almost as soon as his journey had commenced, matters came to a climax. Some persons shouted for the gas lights to be turned up, others tried to "hook" the figure, which in turn became violently agitated as one might naturally suppose under such trying circumstances, and at last down it came on to the heads of the audience below.

The gas was turned up, and it was discovered that the "spirit form" consisted of a light framework covered with cotton wool, made luminous by chemical means. A wire had been quickly stretched from end to end of the hall directly the lights were lowered, and the figure being slung on this should have travelled along when pulled by twine. I may sum up the subsequent proceedings by saying that the ghost was laid for ever so far as that company was concerned.

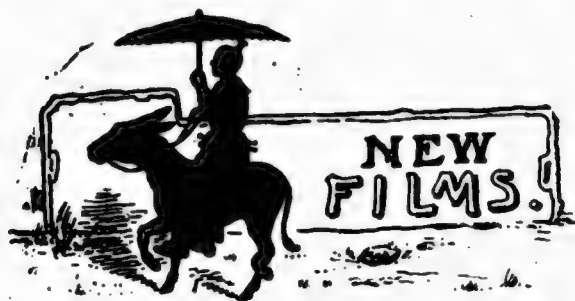
The wire is not to be compared with the pole, in my estimation, as a means of raising the figure, and is always a source of anxiety; while the pole, on the other hand, is only brought forward when required, and taken right away immediately afterwards.



FIG. XXIV.

The illusion of the spirit form taking the hand of one of the performers, and, after raising him from the ground, gliding with him across the platform and depositing him on the other side, is puzzling, but simple. The whole secret lies in the fact that the luminous figure stands upon a small carriage about three feet in height, moving smoothly on four wheels with rubber tyres. On the side of this carriage next the audience is a step, on to which the performer gradually raises himself one foot at a time when being apparently lifted by the luminous figure. Once there, the whole affair is wheeled by an assistant right across the platform from one side to the other, and as the place is in darkness, and the actor is only visible to the audience on account of being in front of the luminous figure, none of these manipulations (Fig. XXIV.) can be seen, the general effect only being apparent.

(To be Continued).



It does not seem so long ago since I was writing lamenting the absence of the sun, and now we are plunged into an almost tropical summer. Only this week I happened to be down in the country attending a review of Yeomanry. The sun was blazing down, and everybody and everything was enveloped in a haze of shimmering heat. As I gazed at the squadrons galloping across the plains, I became aware of a familiar form in the distance, with a camera and tripod, diligently chasing the troops. After the manoeuvres were over, I heard a cheery voice at my elbow asking me how I was. Upon turning round I recognised one of our best known cinematograph operators, who was "larding the lean earth," as he stood by my side. "Plenty of light to-day," I remarked. "You had to stop down a great deal, didn't you?" "Rather," he replied, "if it had been a few degrees warmer I should have stopped down altogether, and have had a siesta under yonder clump of trees."

On every hand one hears of new subjects being taken, but the majority of these are being held up until the autumn, when the demand for new films will increase. This policy on the part of the manufacturers is undoubtedly a wise one, as the demand for new subjects is just now very quiet, and they do not care about placing them on the market when they run a chance of becoming stale before the season commences. We are sorry to see that there is a tendency on the part of some of the manufacturers to reproduce some of the subjects of their rivals, and we think that this is a great pity, inasmuch as the delinquents are quite capable of turning out good subjects of their own, and a practice of this kind tends to stop all originality.

MESSRS. GAUMONT & Co. are rapidly qualifying for the title of the "Cinematograph Whiteleys," as the number of new subjects they turn out seems unending. Their "Gordon Bennett Motor Races" were very fine

indeed, as also "Henley Regatta"; and amongst other comic films we would specialise "The Awkward Horseman," "Who's that a Calling?" and "The Bobby Nightmare."

R. W. PAUL, Esq., has a screaming comic film entitled "He Learnt Ju-Jitsu," also a comic film called "Living Beyond Your Means," which points a very good moral.

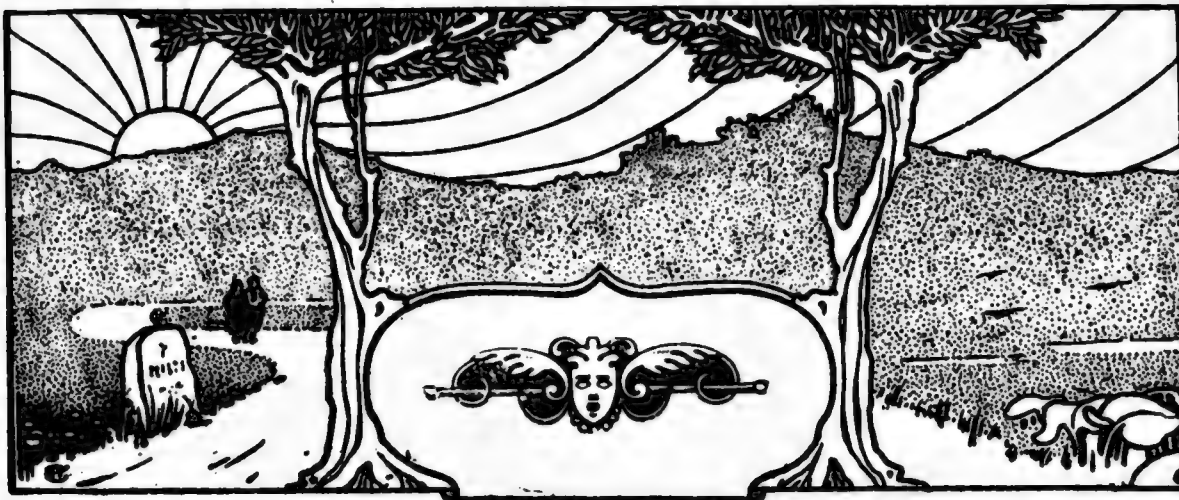
MESSRS. CRICKS & SHARP are to the front with "The Pilfered Porker," which is one of the funniest "chase" films we have seen; their "Quarter Day Episode" and "She Would Sing" are also high class comics.

THE WALTURDAW COMPANY have a most excellent film called "A Modern Day Fagin," and we are persuaded that there is a wealth of subjects to be found in the novels of Dickens. They require being carefully worked out, but they appeal to the public in a way that no other writer can attain.

MESSRS. HEPWORTH & Co. secured a splendid picture of Prince and Princess Arisugawa, attending the launch of the Japanese battleship, *Katori*, and this latest addition to the maritime power of our ally, Japan, will prove of the greatest interest to the British public.

THE WARWICK TRADING COMPANY, LTD., have a good new subject called "The Chicken Stealers." This shows a couple of troopers engaged in looting and riding off with the fowls on their saddlebow; they run into a picket, and are taken to the guard tent. They make their escape and mount two loose horses, and are chased by the patrol. They are eventually recaptured and brought back to camp. This film is full of action from beginning to end, and we can strongly recommend it.

In our next issue we hope to still further improve this column by inserting reproductions from the best subjects placed on the market during the month, so as to give our readers an opportunity of judging of the merits of the films themselves. This will be a great improvement, and likely to greatly enhance the interest of these notes.



GETTING GOOD LANTERN SLIDES FROM WEAK OR CONTRASTY NEGATIVES.

DAVID GRAY ARCHIBALD (Newark, U.S.A.).

Especially written for THE OPTICAL LANTERN AND CINEMATOGRAPH JOURNAL.

AT times you are compelled, through force of circumstances over which you have no control, to make lantern slides from negatives which still remain lacking in proper gradations of density, despite all the intensifying, etc., you may do to them. The resulting slide, if made in the usual way from such plates, is either too "thin" (weak in body) or too "dense" (muddy in appearance) when viewed in the lantern. And viewing in the lantern is the only one test for a slide, for looking at it in the hand will not do. These weak negative slides vary in quality from flatness to muddiness, according to the exposure and development given them when they are made. Still the case is not hopeless, for there is a way of getting good technical slides from such negatives. I mean that you can get a slide from a weak negative that will be as strong as if the plate were really good.

Follow the method outlined below, and you will get a good slide every time. Slides so made I have found perfectly satisfactory when projected upon the screen.

In making the slide use reduction in the camera, which is the best way to get your lantern slide positives any way. First, make two positives of the same subject, and exactly the same sized image. One of these positives make with the film of the lantern slide plate facing *towards* the negative (the regular way), and the other make with the film facing *away* from the negative, so that you will get a reversed positive. You can if you wish, instead of doing this, turn your negative around in its position in front of the lens. The necessary getting them of the same size of image is an easy matter if everything secures firmly in position in your slide-making apparatus. The little fine difference in size between the regular and reversed positives, which together form your slide, is too slight to be of any importance.

When you have your two slides made, you are in a position to proceed to mount them. In mounting, place a suitable mat in the exact position wanted on the correctly made slide. When this is done, adjust the other over it, film to film, as

a cover-glass. In placing the upper (cover-glass and reversed image slide), view the work as it will be seen in the lantern, *i.e.*, from the centre. When they are in the proper register fasten the two slides together, inside, this to prevent their getting out of alignment when binding, spotting, cleaning, and handling. I am perfectly aware that you will see a blurred image if you view the slide thus made in the hand, but upon the screen there will be no evidence of what means you have employed to overcome your difficulty. The effect upon the printing quality of the negative is the same as having made two impressions of plate one on top of the other on the same piece of glass, thereby giving it double strength.

If you ever have to make a slide from a negative that shows halation around doors, windows, etc., here is a variation of the foregoing that will help you to get good results. If the halation be much scattered and in small spots you may not be able to apply it.

Make your first positive from such a negative as usual, not attempting to get any detail in the halation parts. You should therefore get a slide excellent technically, everywhere but where there is halation. There you will have clear glass. The problem is to supply the missing detail. To do this make another slide of the subject, reversed in position. This one expose for the detail in the halation places alone. As all you want is the detail for the parts where it is lacking in the other slide, you will have to vignette away the rest of the negative in making the slide, or else reduce it off of the positive after the slide is made.

A piece of cardboard with holes cut out where the halation occurs, moved between your negative and your lens during the exposure of the slide, and in line with your detail parts will give you the patches of detail wanted. This card can have one

or a series of holes. If one hole is employed you will have to move it from spot to spot in making your slide. To keep the spots in register, look from the back when moving them.

When obtained, this detail slide is placed upon the other one as explained before (films face to face), which strengthens and evens it up wonderfully. Note:—If you suspect halation is going to take place when taking a subject, you had better make two identical plates. One exposed for the high lights, and another exposed for the detail in the shadow parts. From these two you can easily make the two positives.

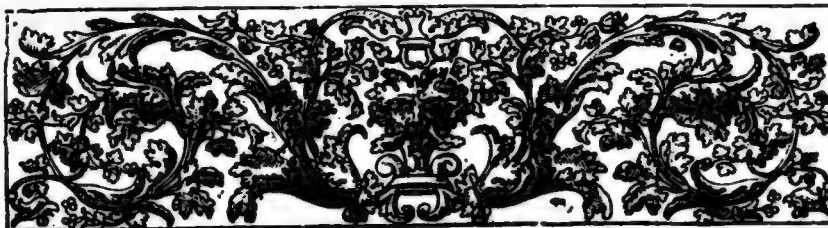
If you care to, you can arrange the one with the high light detail in a printing frame with a permanent vignetter in front of it. By doing so you can use it to print in detail in prints from the other negative, and also for making a slide.

If you have any difficulty in doing this work, not the fault of your apparatus, then it is your own. I have done it all with very crude working cameras all right.

Once you have your good slide by either ways outlined above you can make a new negative from it by copying in the camera. This negative will serve for making future slides and prints from.

But if your object is a negative, you will have to work with that in view from the start, which means differently from slide making. Lantern slides considered as negative making transparencies are much too weak in their detail of the high lights to make good copy negatives.

Copy negatives made from them are unduly harsh and contrasty. If your positive is carried in development until there is value in every part you can get the proper negative effect from it. After having got your negative you can unmount and reduce your positives, and then remount them for lantern slides.





ARCHITECTURE AND SLIDES MAKING.

BY THE REV. T. PERKINS.

THERE is, I think, no other class of subjects so well adapted to exhibition in the form of lantern slides as architecture. My opinion may, to a certain extent, be due to the fact that architecture has a great fascination for me. Some of the happiest days of my life have been those on which, armed with a permit and a good stock of well backed plates, I have set out to thoroughly photograph some fine mediæval building—English or foreign. There is such abundance of work to be done, such variety in it, and when once we have reached the building all the subjects lie close together, there is no need to have a long tramp between one exposure and the next, and, provided the light is fairly good, we are to a great extent independent of atmospheric conditions; inside the building, at any rate, it matters not whether the day be fine or wet, whether a gale be raging without or no breath of air be stirring, which for landscape work all of these things are of importance; for I take it that in landscape photography, unless we get some special effect, of mist, or cloud, or sunlight and shadow, our photographs will be of little value. In interior architecture work the lighting from the windows will in almost all cases be sufficient to produce an effect, if we carefully select each subject according to

the time of day at which we make our exposures. Personal predilection, as I have said above, may weigh with me; but still my conclusion as to the suitability of such subjects for lantern slides is borne out by the fact that, in a postal lantern slide club of which I am a member, the boxes that come round when the subject is architecture contain far more good slides than when it is landscape or figures. Landscape negatives that give excellent prints on paper often fail to give satisfactory slides. The diffusion and breadth, which are so great a charm in a print, often seem anything but pleasing when the subject is enlarged on the screen. Figures and portraits also will rarely stand this great enlargement. It may be taken for granted that nine out of ten portraits require retouching, and, however delicate the retouching may be, it is apt to look coarse and obtrusive when a slide made from a retouched negative is thrown on the screen. And if the minor defects are so small that we do not think they need correction by the pencil when we are only going to make a contact print, they become conspicuous when the image is enlarged to the extent that it is when the slide is in the lantern. Again, in most architectural views, the subject itself is monochromatic, and therefore the picture on the screen is more true to nature than

in the case of landscape, especially as it is possible by suitable development to closely imitate the colour of the stone.

If we use small plates and print our slides by contact, we are able to use lenses of absolute short focal length. The view will never exceed three inches square, and will more often be contained within a rectangle of 3 in. by 2 in. So that a lens of 2 in. focus will be for our purpose a wide-angled one, one of 3 in. focus a mid-angled one, while one of 4 or 5 in. focus will be as narrow an angled lens as we need employ.

Every photographer knows that a short focussed lens will give greater depth than a long focussed one, working at the same intensity, hence a short focussed lens may be used at its full aperture of $\frac{f}{8}$ or $\frac{f}{11}$, and so comparatively short exposures only will be required, even if the illumination is not great. Thus, as the exposures will be counted by seconds and minutes instead of minutes and hours, a large number of plates may be exposed in a day. I have often exposed as many as twenty plates in the working hours of a winter's day, the time being consumed in selecting subjects and getting the camera into position rather than in the exposures themselves. If it is intended to obtain negatives from which prints on paper, as well as slides may be made, it is not a bad plan to carry two cameras, one of larger size for general views, which may be used with lenses stopped down to $\frac{f}{16}$ or $\frac{f}{22}$, necessitating long exposures, and a smaller one for details. Thus, having begun the long exposure with the former, we may, during the time occupied by it, take one or two exposures with the latter.

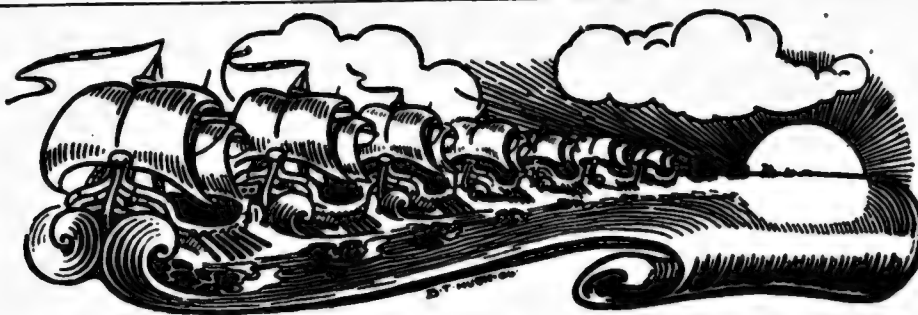
In selecting subjects for general views it will be best to take them looking across or diagonally, rather than looking along the full length of the building; and even if we want a view showing the full length of a church, the camera should be placed a little on one side and swung round a little towards the other, care, however, being taken to compose the lines formed by pew ends or rows of chairs, so that they do not have an awkward appearance. Such subjects as single doors or windows should almost always be taken full in front, and with a side lighting, so as to avoid flatness. An arch should never be

cut in two, that is, the pillar on which it is supported should be brought to the edge of the plate, no part of the adjoining arch being included at the edge; the top of the arch should never be cut off. It is well, except when photographing details, to place the feet of the tripod on the floor level, as the architect probably designed his building so that it should look at its best when seen by a person standing on the floor. In the same way exteriors should be taken from the ground, not from the windows of neighbouring houses. Nooks and corners, chapels, tombs, flights of steps, etc., are generally pleasing subjects.

In developing negatives of interiors soft effects should be aimed at; these are secured by using the ordinary solutions much diluted with water, so that full details are brought out without blocking up the high lights. For the same reason little of any restrainer is required save in cases of known over-exposure.

When printing from the negative on the transparency plate, special care should be taken to get natural and soft effects; there is always a danger of getting the contrasts too strong, and so producing stagey effects. These may be popular with an uneducated audience, but cultivated taste will condemn them. Anyone who has had experience in slide making will know that contrasts may be increased and decreased at will, so that defects of this kind in the negative may be corrected. A short exposure to a strong light will decrease the contrasts, while a long exposure to a weak light will increase them. When making slides by contact, the intensity of the light may be most easily changed by leaving the lamp untouched, and holding the printing frame nearer to or further from it.

It is well to mask the negative so as to prevent light creeping in through the part of it which falls beyond the area to be included on the slide, but this mask should be put on the *back* of the negative, not between the negative and transparency plate, as in the latter case the two films will not be in perfect contact, and definition will suffer in consequence. The definition in a slide cannot be too sharp, as the enlargement of the image on the screen necessarily will somewhat reduce the sharpness of the definition.



THE SCIENCE OF ANIMATOGRAPHY.

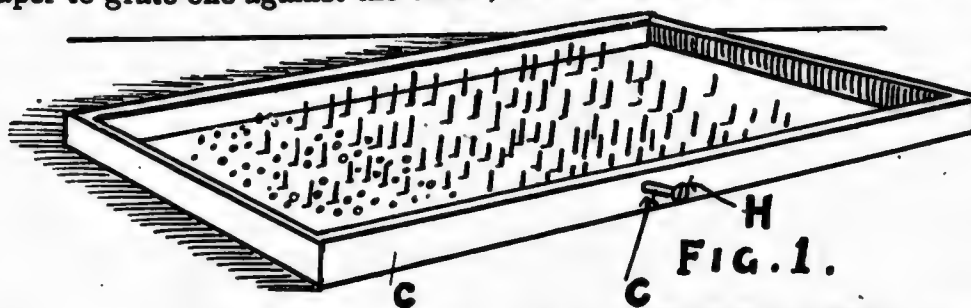
(By THE EDITOR.)

CHAPTER VI.



HIS series of articles would be incomplete without some reference to the property necessary for use behind the screen. The realistic effects of many subjects are greatly strengthened by a judicious use of the apparatus we now describe. Fig. 1 shows a tray, in the bottom of which is driven a number of nails. The tray itself is made of sheet tinned iron, and a wooden supplementary bottom is provided into which the nails are driven after passing through the metal bottom. A screw is fastened on either side, as shown at H. The under side of this tray is furnished with a sheet of coarse glass paper; this is shown in Fig 2 at E. It will be seen from the illustration that the screws on either side of the tray rest in a groove G, made in the upright of a wooden framework. The tray thus works after the manner of a see-saw, the glass paper above referred to resting on a drum A. The drum is covered with a sheet of coarse glass paper, and may be revolved by turning the handle B. A supply of large sized shot and some marbles are put into the tray when the apparatus is ready for use.

The kind of scene in which such apparatus will be found useful is chiefly one in which water plays a part. Thus: Suppose we have a waterfall, the ceaseless noise of the falling water will be well imitated by turning the handle B, and allowing the sheets of glass paper to grate one against the other; or if the scene is one in which waves are

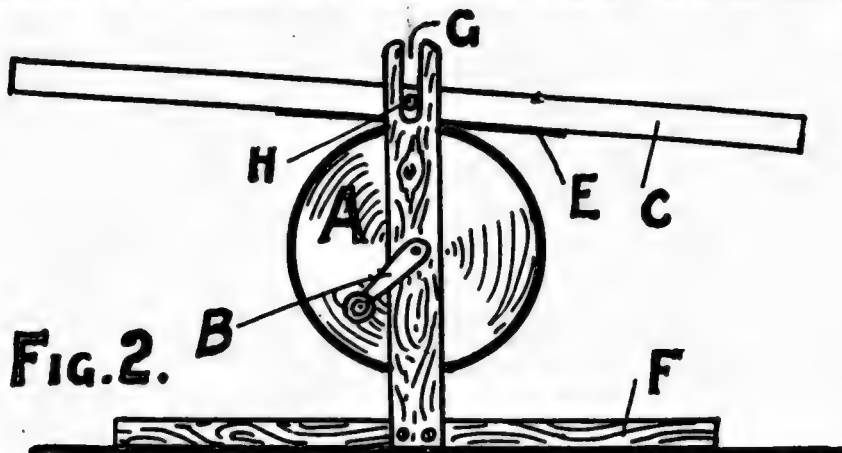


breaking on the sea-shore and then receding, the sound will be effectively produced by a variation thus. Take a sheet of tin J, Fig. 3, and when the wave breaks give the tin a buckling movement by pressing on its ends in the manner indicated, so that it alternately takes the shapes shown by the dotted lines K, M, and L, N; immediately follow this by a sharp turn of the handle of the apparatus, which will give the sound of the water rushing up the sloping sands over the pebble beach. When the water recedes, it generally makes a rustling sound as it rolls back with the pebbles. This last effect is produced by tilting the metal tray containing the shot and marbles. As they roll from

one end to the other, their progress is impeded by the nails standing in a vertical position; and it is remarkable how very like the sound produced corresponds to that already named.

The variety of subjects with which the apparatus may be used is almost unlimited; but the operator must necessarily make a study of the pictures with which he has to deal, for it is only after several rehearsals that he will be proficient in giving the sounds at the right moments and in proper combination.

We have long since held the opinion that this phase of exhibiting pictures, *i.e.*, the proper manipulation of supplementary mechanical effects, receives too scant attention



from most exhibitors. It is, nevertheless, one which, when properly attended to, adds considerable value to living pictures, and considerable force to their illusion of apparent nature.

The operator should ever bear in mind the laws of nature which govern the velocity of sound, when attempting to imitate it in combination with his pictorial representations. In scenes where guns are fired, he will find it easy enough to strike the big drum at the correct moment, the smoke giving him the signal; but in this case also it will be necessary for him to use his judgment of distances from which the report is supposed to come. Where revolvers or guns are fired at close quarters, it will be necessary for him to know beforehand what is to be anticipated. The various sounds made, or represented to be made, by a number of depicted actors, furnishes the property man with material for study, and should suggest the various devices obtainable for their proper reproduction.

The rolling of thunder is generally done on the big drum; but if a sheet of iron, three or four feet square, is buckled in the manner indicated in Fig. 3, but by resting one end on the floor of the stage, the sounds apparent during a thunderstorm are more

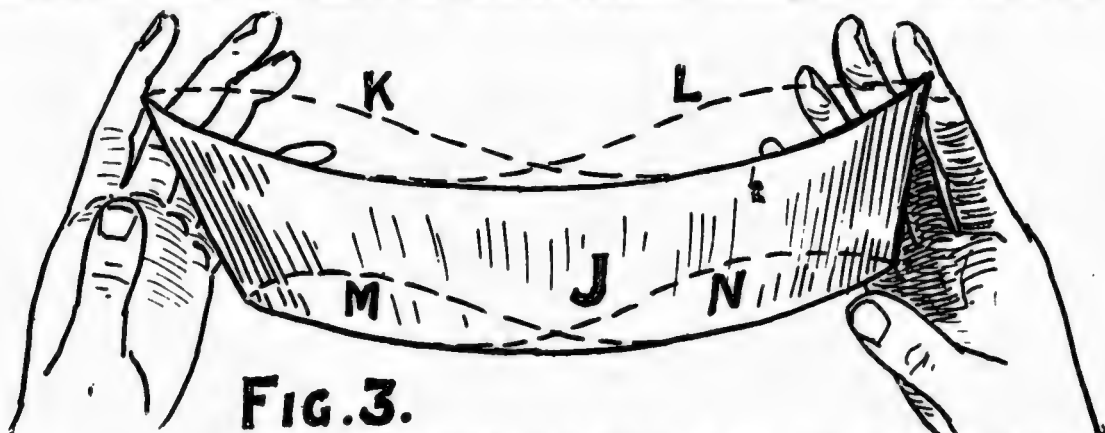
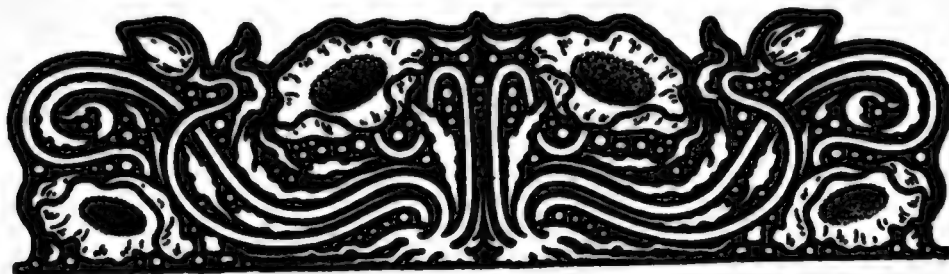


FIG. 3.

effectually produced. No pains or trouble are spared in the getting up of effects for the ordinary scenic diorama; and in conjunction with living picture projection upon a screen, there is an equal scope for ingenuity and mechanical skill.

END.



Stereoscopic Notes.

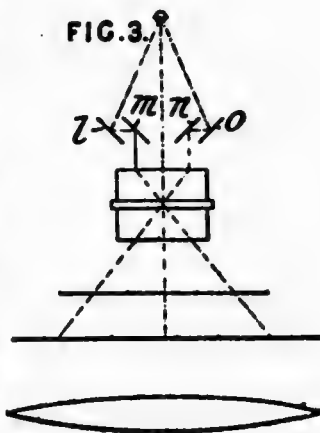
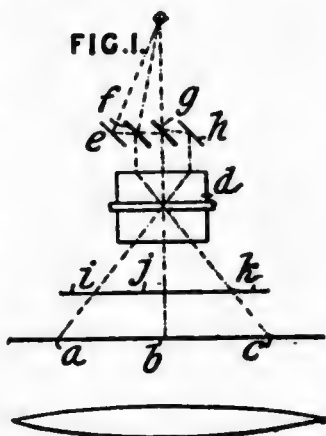
Section for Stereograms at the Royal Photo Society's Exhibition.

The fiftieth annual exhibition will be held at the New Gallery, 121, Regent St., London. The scientific section will include stereoscopic prints and slides and lantern slides. Fuller particulars and entry forms obtainable from the Secretary, Royal Photographic Society, 76, Russell Square, W.C.



Stereoscopic Optical Projection Apparatus.

In the *Patent Journal* for July 19 there is a specification, No. 7179, relating in the first instance to apparatus for projecting coloured images so that they will superimpose, and finally, it is claimed that the apparatus may be used for stereoscopic projection. It is claimed that kinematographic or other views may be thrown upon the screen in their natural colours, the invention being applicable also for producing the original negatives. Fig. 1 shows a series of pivoted mirrors, *e, f, g, h*, arranged between the objective *d* and the screen, the positives *a, b, c*, and the colour screens *i, j, k*, being ar-



anged as shown. The two mirrors, *f, g*, have two reflecting surfaces; or each may consist of two mirrors arranged back to back to facilitate adjustment. Fig. 3 shows four pivoted mirrors, *l, m, n, o*, with single reflecting surfaces so arranged that the light from the central positive passes to the screen without reflection. The mirrors shown in Figs. 1 and 3 may be inclined in the opposite sides of the axis of the apparatus. The apparatus may be used for superimposing two positives. The next claim made by the patentee is a very remarkable one, he says "By placing the mirror *l* further from the mirror *m* stereoscopic projection is obtained." If this last claim has reference to projection of positives upon the screen, it is obvious that some sort of analytical system would have to be introduced for the inspection of such a projection; whilst the dissimilar images would either have to be in complementary colours or projected alternately. If on the other hand the claim refers to obtaining the original negatives, as mentioned in the early part of the specification, then the mirrors *m, n* in Fig. 3 would require to be brought close together, so that their inner edges touched and formed an angle of 45 degrees or thereabouts. (Grant of patent opposed).



The Most Suitable Size Camera for Stereoscopic Work.

What size camera shall I require for stereoscopic work is the question every amateur is led to ask when first taking up this fascinating and beautiful branch of photographic art. We may say at once that a half-plate camera is the most suitable, for reasons we shall state presently. Any smaller size may be used, and enlargements made afterwards, in order to bring the prints up to the so-called stereo-standard size; or prints which are not up to the standard size may be mounted a short distance apart, according to their size, so that corresponding parts in the dissimilar pictures are displaced a distance apart of $2\frac{1}{2}$ inches. Thus, if a



quarter-plate camera is used, and the dissimilar pair of images are received side by side on the quarter-plate, each [will measure about $2\frac{1}{8}$ ins. by $3\frac{1}{8}$ ins., after allowing for part of the negative round the edges not utilised. If we try to examine these small stereograms in an ordinary stereoscope without cutting them apart, and mounting with $2\frac{3}{4}$ in. centres as mentioned above, we shall find some little difficulty in combining them. This is due to the fact that the prismatic lenses of the ordinary stereoscope are of a refractive index, suitable for bending rays of light from two points, separated $2\frac{3}{4}$ ins. apart inwards to a common centre; and that, when we attempt to unite the smaller pictures on a quarter-plate, the refraction is too great, and the pictures are seen, not at a common centre, but thrown past each other. If the small prints are severed and mounted with $2\frac{3}{4}$ in. centres, the stereoscopic effect should be quite as good as that obtained with the larger size prints. The manner in which quarter-plate stereograms should be mounted is clearly shown by the accompanying specimen.

5 in. by 4 in. Camera for Stereoscopic Work.

When we use a 5 in. by 4 in. camera for stereo work, we are still below the standard size with our prints. The dissimilar pictures, after allowing for $\frac{1}{8}$ in. margin unused, will be

$2\frac{3}{8}$ ins. by 4 ins. The most suitable height for stereo pictures being $3\frac{1}{4}$ ins., we have a little vertical latitude for selecting the best part of the picture, there being in height nearly three-quarters of an inch to spare. Prints from a 5 in. by 4 in. negative will not require to be displaced from each other as shown in our quarter-plate example, owing to the fact that corresponding points will already be separated a distance of some $2\frac{3}{4}$ ins., which is a very good separation for easy combination in the stereoscope.

Half-plate Camera for Stereoscopic Work.

The normal separation of the pupillary centre of the human eyes being $2\frac{3}{8}$ ins., the width of stereoscopic prints are limited to a quarter of an inch of this measurement. If we make our individual prints wider than $2\frac{3}{8}$ ins., they begin to give us trouble when put under examination in the stereoscope; because the ordinary stereoscope is designed to meet the requirements of the normal pupillary displacement. If the prints are large, say 3 ins. wide, when mounted, any two points that correspond in the dissimilar pair cannot be less than 3 inches (*i.e.*, if the prints are properly trimmed), and this displacement being greater than the normal displacement of the pupillary centres, it is only with considerable strain that the pictures can be

coalesced. In this connection it may be stated that, it is not of the greatest importance how far apart the images are upon the focussing screen or finished negatives, but rather it is the distance apart of corresponding points in our finished prints which claim especial care and attention. We are now prepared to note the reason why a half-plate camera is the most suitable size to use for stereoscopic work. The size of the half-plate being $6\frac{1}{2}$ ins. by $4\frac{1}{2}$ ins., we have latitude both in a vertical and horizontal direction for trimming, or for variation of displacement of a pair of lenses, where such are used. Thus it sometimes happens that the top or bottom part of the half plate includes the most desirable portion of the view or subject taken, and we may select this part when trimming the prints previous to mounting. On the other hand, a subject in which the most foreground object is some distance from the camera, will require a greater separation of the centres of the two lenses, in order to obtain as much dissimilarity as possible. On a half plate the lenses may be separated a distance of $2\frac{1}{8}$ ins., and the prints when trimmed can have their centres reduced to the normal of $2\frac{1}{2}$ ins., or the greatest possible separation of $2\frac{3}{4}$ ins.



The Essential Characteristic of Stereoscopic Photographs.

Whilst solidity and rotundity are admirable qualities to be found in properly lighted subjects in stereoscopic work, the relief apparent in the most successful productions is the unique feature of the stereogram. In many instances however, we have found this possible feature neglected by amateur stereoscopists. We remember looking through many hundreds of stereoscopic views obtained by an enthusiast, who had unfortunately overlooked the fact that in stereoscopic compositions the most pleasing results are those in which prominent foreground objects are included. In this large collection of stereograms, evincing technical skill on the part of the operator in other respects, we were disappointed in finding a small percentage of slides that gave the striking characteristics of the stereogram. It is better to have a few dead branches in the foreground of a landscape than to leave the eye to wander a great distance before coming to a first object. Doubtless the lenses of a good stereoscope would help the illusion and improve a pair of flat pictures when examined in the instrument, but one naturally looks for something more than pictorial composition and artistic conception when placing the face within the hood of this entertaining instrument.

A HINT FOR OVER-EXPOSED SLIDES.

MANY people will find that some of their slides are over-exposed. This is seen by the image coming up and at once rapidly darkening.

If the slide was now fixed it would be flat and of bad colour. Instead, however, of removing the slide from the developer and fixing, continue developing it till it is very dense and very much over-developed. Then, after fixing, the slide must be placed wet with hypo into a bath of ferricyanide of potassium. To prepare this bath add a few crystals of the above salt to a dish of water, in fact, enough to make the solution a canary yellow. The slide in this bath rapidly reduces, and the operation must be continued till the density is considerably thinner than a normal slide should be. Wash thoroughly to get rid of hypo, and bleach the slide thoroughly in the following, in fact, it will be impossible to over-bleach it :—

Mercuric chloride	...	50 grs.
Potass. bromide	...	50 grs.
Water	...	5 ozs.

After this, wash well to get rid of the mercuric chloride, and blacken with

Ammonia .880	...	1 oz.
Water	...	20 ozs.

The slide will now be found to be crisp, with perfect gradation and a very pleasing colour.

This method is particularly useful for getting good slides from very thin negatives, only care must be taken in the first place not to over-expose. For seascapes, if the exposure is made so as to get a black tone and the slide is under-developed, and after fixing and washing well is only intensified, a most intense beautiful purple-black will be produced almost as fine as wet collodion.

F. C. D., *Photographic News*.



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Mercuric chloride	...	50 grs.
Potass. bromide	...	50 grs.
Water	...	5 ozs.

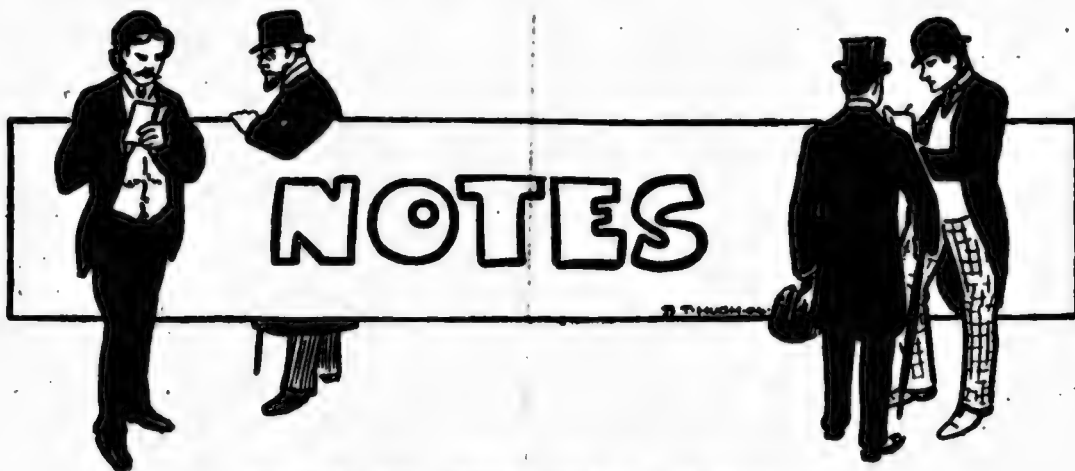
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F. C. D., *Photographic News.*



Interesting items connected with the Trade are invited.

Royalty and the Cinematograph.

THE SHEFFIELD PHOTO CO. are going ahead, and are preparing some novel subjects for the opening of their season after August Bank Holiday. This firm developed 10,000 feet of film for three clients in two days. Owing to their enterprise, the brilliant events of Thursday at Manchester were reproduced by cinematograph at Knowsley the same night, by Royal command, and the Royal party were much amused at the reenactment of the scenes in which they had played so prominent a part. The exhibition took place out of doors, and occupied about three-quarters of an hour. It is interesting to note that the pictures were taken by a Sheffield operator, in the person of Mr. Mottershaw, and to obey the Royal command it was necessary to produce on the same afternoon a duplicate film, as the pictures had to be shown at a Manchester hall the same evening.

Walturdaw, Ltd., of Dean Street

Are this month putting on the market a most useful and complete Film Measurer, by which the actual length of any film may be reliably proved in a few seconds. Any length may be measured without fear of the film slipping, and it has also the advantage of being simple to manipulate, besides being thoroughly effective and reliable. This measurer should be in the hands of all exhibitors. Amongst the several new films issued by this firm may be specially mentioned a screamingly funny set of pictures entitled "The Bobby and the Bob."

Messrs. Gaumont & Co.

Are supplying the pictures, etc., for a cinematograph show for that versatile artiste, Mr. R. G. Knowles, who is retiring from the music hall profession, and going on tour as a "Conversationalist," in a novel combination of stories and pictures, of places he has visited, including both humorous and interesting sketches. The tour will commence at Lowestoft early this month.



Queries.

- 28 What do you consider the weakest parts in the present forms of projectors, or which parts need improvement?—INVENTOR.
- 29 Has any apparatus been invented for rewinding one film whilst another is being projected? I have an idea for doing this in a perfect manner where could I sell the idea?—E. S. H.



Catalogues and Books Received.

Two of Messrs. Cassell's "Work" Handbooks are to hand, namely, "Telescope Making" and "Microscopes and Accessories." Both are profusely illustrated with many figures and working diagrams. Anyone interested in the construction and working of the instruments dealt with will do well to invest a shilling in the purchase of either of these neat little volumes, as the information they contain can be relied upon as being accurate and up-to-date.

Advertisements.

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Miscellaneous Advertisements.

Professional Announcements.

LECTURERS requiring a few good slides (rather than rubbish in quantity), should try Wilkinson, 15, Holme side, Sunderland. Established 1859. Wet plate Collodion Transparencies from owner's negatives, and best colouring.

Trade Announcements.

35 Copies of "Stereoscopic Phenomena of Light and Sight" to be disposed of at half published price, on account of covers being slightly soiled. This Book has received the highest recommendation from the Photographic Press and public, and contains a wealth of illustrations and information on Stereoscopic Photography. Usual price 3/6; price of slightly soiled copies 1/9, post free. Only the above number can be sold at this price.—From the **MANAGER**, the Stereoscopic Supply Stores, 34a, Castle Street, Salisbury.

CINEMATOGRAPH CAMERA, first class outfit, cost £49, only used once, £15.—Box —, Optical Lantern Journal.

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graphiques**
EN FRANCE ET À L'ÉTRANGER.

CONTENTS.—I.—A General List of Manufacturers of Photographic Materials classed by order of Specialities, in 710 chapters.

II.—A General List of Dealers, classed by order of Localities.

III.—A Repertory of all Trade Marks and Appellations usually given to many Photographic Apparatus, Sundries, Specialities, &c.

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Malden's Triple , a superb instrument designed and used by B. J. Malden, Esq., complete with 2 sets highest grade lenses; cost over £100, hardly soiled ...	£46 10 0
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Japanned Lantern , 3-wick lamp ...	0 6 0	Gweyer Jet ...	42/- and
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Science Teachers lanterns with Pamphengos lamp, use lime or acetylene, £7/10, for ...	2 17 6	100 Chamber Jets ... each 4/6 &	0 8 6
Allendale Single lantern with incand. light, very portable, cost £6/6, for ...	2 10 0	Arc Lamp , costing £4/10, for ...	1 15 0
Science vertical and horizontal lantern , all in brass, jet, reflectors complete, cost £20, price ...	4 7 6	Do., Beaumonts , £3/3 new, for ...	1 10 0
Oxyliethe Generator , £5, for ...	3 0 0	Do., W T C , £4/4 new, for... ..	2 10 0
Oxygen Generator , Riley's, £7/7, for ...	4 7 6	Ives Photography in Colours , photo-chromosome with mahogany lantern in strong case, equal new, by Newton, £16/16, for ...	8 0 0
		Stereoscopic Effect on Screen , Anderson's patent, biunial, and 450 Analyzers in cases, cost £60, for ...	15 0 0

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ANIMATED MACHINES.

Bioscope , by the Warwick Trading Co., consisting of Bioscope with automatic light cut off, extra lens for lantern slides, Russian iron lantern (special size) with brass double stage front and cone, fitted with both 4 and 4½ inch condensers, one large Urban electric arc lamp, brass extension, adjustable resistances, with fuse blocks, levers, switches, flexible covered wire, one improved rapid film winder, two 11 inch brass spun reels, combination travelling case and exhibition stand fitted with handles. In excellent condition. Bargain, price only				...	...	23 10 0
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Do., Projector only, "Prestrich," takes 700 feet film, A.I	...	...	8 10 0	Slide List, 60,000 slides	...	0 0 6
Do., Imperial Rotograph, new £21	...	...	16 10 0	Grand animated bioscope list	...	0 0 6
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